

# Exhibit 928-5



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12/415,375	03/31/2009	Thyagarajan Nandagopal	ALU/130080	2601

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Eatontown, NJ 07724

EXAMINER
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LE, THU NGUYET T

ART UNIT	PAPER NUMBER
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2162

MAIL DATE	DELIVERY MODE
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01/11/2012

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

12/415,375

Applicant(s)

NANDAGOPAL ET AL.

Examiner

THU-NGUYET LE

Art Unit

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 November 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5) ☒ Claim(s) 1-20 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-20 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 31 March 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

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## **DETAILED ACTION**

### **Response to Amendment**

1. This office action has been issued in response to amendment filed on 11/23/2011. Claims 1, 5-7, 9-10, 13-15, and 17 have been amended. Claims 1-20 are pending in this Office Action. Accordingly, this action has been made FINAL.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 9-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 9-12 are addressed to a “mesh network system” that can be interpreted as referring lines of programming rather than referring to the hardware system because the claims lack necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. As such, they fail to fall within a statutory category.

Claims 13-16 are not limited to tangible embodiments. In view of Applicant’s disclosure, specification page 13 lines 24-25, the “computer readable medium” includes a radio or infra-red transmission channel, in page 15 lines 8-10, “computer readable medium” is the communication medium. As such, the claims are not limited to statutory subject matter and are therefore non-statutory.

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Claims 17-20 are addressed to a “content server” that can be interpreted as referring lines of programming rather than referring to the hardware system because the claims lack necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. As such, they fail to fall within a statutory category.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4, 6, 8-9, 11-13, 15-17, and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Liang (US 2008/0279273).

***With respect to claim 1***, Liang discloses a method for generating a multi-level hierarchical directory structure and establishing relationships between descriptors, the method comprising:

selecting an initial data object (para.[0032] lines 1-3);

creating one or more descriptors associated with the data object

(para.[0032] lines 1-4) wherein each of said descriptors are further associated

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with one or more corresponding descriptors thereby forming a multi-level relational tree (fig. 5 & 6, para.[0062] lines 1-5);

determining the relationship between the one or more descriptors (fig. 5 & 6, para.[0062] lines 1-5);

creating a hierarchical structure linking the different levels of descriptors (fig. 5 & 6, para.[0062] lines 1-5);

updating a corresponding database (para.[0058] lines 1-5); and

identifying a single initial descriptor that links a plurality of descriptors (para.[0032], [0058], [0062] lines 1-5, [0066] each TSFS has exactly one Service Gateway object on top-level directory of TSFS, the Initial Object Descriptor of Service Gateway object, fig. 6 TSFS file directory: the service gateway links other descriptors such as file <http://a.b/c>, directory <http://g.h>, and directory <http://x.y/t>) and two or more predecessor descriptors linking another single descriptor (the directories [g.h](http://g.h) and [x.y/t](http://x.y/t) are predecessor descriptors linking to another file descriptor such as [w](http://w)) to thereby establish relationships between different descriptors relative to themselves and to the single initial descriptor (fig. 6 depicts relationships of different directories, files and to the service gateway).

**Claim 2** is rejected for the reasons set forth hereinabove for claim 1 and furthermore Liang teaches each descriptor can be related to one or more predecessor descriptors thereby forming a hierarchical relationship (fig. 5 & 6, para.[0062] lines 1-5).

**Claim 3** is rejected for the reasons set forth hereinabove for claim 1 and furthermore Liang teaches each descriptor can be associated with one or more

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predecessor descriptors and the relationship of the object to the one or more predecessor descriptors is acyclic (fig. 6).

**Claim 4** is rejected for the reasons set forth hereinabove for claim 1 and furthermore Liang teaches determining the relationships between different descriptors relative to themselves and to the initial data object (para.[0062]).

**With respect to claim 6**, Liang discloses a network management system communicatively coupled to one or more element management systems adapted to perform a method for creating a multi-level hierarchical directory structure and establishing relationships between descriptors (fig. 6), comprising:

a processor for executing software instructions received from a memory to perform thereby a method for, the method comprising:

linking each of a plurality of data objects to multiple respective descriptors (para.[0032] lines 1-4, fig. 6), each of said descriptors being linked with one or more predecessor tags (fig. 5 & 6, para.[0062] lines 1-5); and

identifying a single initial descriptor that links plurality of descriptors (para.[0032], [0058], [0062] lines 1-5, [0066] each TSFS has exactly one Service Gateway object on top-level directory of TSFS, the Initial Object Descriptor of Service Gateway object, fig. 6 TSFS file directory: the service gateway links other descriptors such as file <http://a.b/c>, directory <http://g.h>, and directory <http://x.y/t>) and two or more predecessor descriptors linking another single descriptor (the directories [g.h](http://g.h) and [x.y/t](http://x.y/t) are predecessor descriptors linking to another file descriptor such as [w](http://w)) to thereby establish the relationships between different

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descriptors relative to themselves and to the single initial descriptor (fig. 6 depicts relationships of different directories, files and to the service gateway).

**Claim 8** is rejected for the reasons set forth hereinabove for claim 6 and furthermore Liang discloses the relationships of the object to the one or more descriptors is acyclic (fig. 6).

**With respect to claim 9**, Liang discloses a mesh network system comprising a network manager adapted to manage the mesh network and perform a method for creating a multi-level hierarchical directory structure and establishing relationships between descriptors, the method comprising:

linking by a device each of a plurality of mesh clients and nodes to multiple respective descriptors (para.[0032] lines 1-4, fig. 6), each of said descriptors being linked with one or more predecessor descriptors (fig. 5 & 6, para.[0062] lines 1-5); and

identifying a single initial descriptor that links a list of mesh clients (para.[0032], [0058], [0062] lines 1-5, [0066] each TSFS has exactly one Service Gateway object on top-level directory of TSFS, the Initial Object Descriptor of Service Gateway object, fig. 6 TSFS file directory: the service gateway links other clients such as file <http://a.b/c>, directory <http://g.h>, and directory <http://x.y/t>) and two or more predecessor descriptors linking another single descriptor thereby establishing the relationships between different descriptors relative (the directories [g.h](http://g.h) and [x.y/t](http://x.y/t) are predecessor descriptors linking to another file descriptor such as [w](http://w)) to themselves and to the single initial mesh client (fig. 6 depicts relationships of different directories, files and to the service gateway).



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**Claim 11** is rejected for the reasons set forth hereinabove for claim 9 and furthermore Liang discloses the client is one of a radio node, a router, a gateway (para.[0033]).

**Claim 12** is rejected for the reasons set forth hereinabove for claim 9 and furthermore Liang teaches the relationships of the client to the one or more descriptors is acyclic (fig. 6).

**With respect to claim 13**, Liang discloses a computer readable medium for storing instructions which, when executed by one or more processors communicatively coupled to a network, perform a method for creating a multi-level hierarchical directory structure and establishing relationships between descriptors, comprising:

linking by a device an object to multiple descriptors describing said object (para.[0032] lines 1-4, fig. 6), each of said descriptors being identified by one or more predecessor descriptors linked to the descriptor (fig. 5 & 6, para.[0062] lines 1-5); and

identifying a single initial descriptor that links plurality of descriptors (para.[0032], [0058], [0062] lines 1-5, [0066] each TSFS has exactly one Service Gateway object on top-level directory of TSFS, the Initial Object Descriptor of Service Gateway object, fig. 6 TSFS file directory: the service gateway links other descriptors such as http://a.b/c, directory lid://g.h, and directory http://x.y/t) and two or more predecessor descriptors linking another single descriptor to thereby establish relationships between different descriptors relative (the directories g.h and x.y/t are predecessor descriptors linking to another file descriptor such as w)

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to themselves and to the single initial descriptor (fig. 6 depicts relationships of different directories, files and to the service gateway).

**Claim 15** is rejected for the reasons set forth hereinabove for claim 13 and furthermore Liang discloses the relationship of the object to the one or more descriptors is acyclic (fig. 6).

**Claim 16** is rejected for the reasons set forth hereinabove for claim 13 and furthermore Liang teaches determining the relationships between different descriptors relative to themselves and to the initial data object (para.[0062]).

**With respect to claim 17**, Liang discloses content server multicasting to a plurality of client servers in a network system adapted to perform a method for creating a multi-level hierarchical directory and establishing relationships between descriptors, the method comprising:

linking by the content server each of a plurality of client servers to multiple respective descriptors (para.[0032] lines 1-4, fig. 6), each of said descriptors being linked with one or more predecessor descriptors wherein a top level predecessor descriptor corresponds to the content server (fig. 5 & 6, para.[0062] lines 1-5); and

identifying a single initial descriptor that links a plurality of client servers (para.[0032], [0058], [0062] lines 1-5, [0066] each TSFS has exactly one Service Gateway object on top-level directory of TSFS, the Initial Object Descriptor of Service Gateway object, fig. 6 TSFS file directory: the service gateway links other clients such as file `http://a.b/c`, directory `lid://g.h`, and directory `http://x.y/t`) and two or more predecessor descriptors linking another single descriptor to thereby

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establish relationships between different descriptors relative (the directories g.h and x.y/t are predecessor descriptors linking to another file descriptor such as w) to themselves and to the single initial client server (fig. 6 depicts relationships of different directories, files and to the service gateway).

**Claim 19** is rejected for the reasons set forth hereinabove for claim 17 and furthermore Liang teaches each descriptor can be associated with one or more predecessor descriptors and the relationships of the client server to the one or more descriptors is acyclic (fig. 6).

**Claim 20** is rejected for the reasons set forth hereinabove for claim 17 and furthermore Liang discloses the network further comprises a social network and the plurality of client servers comprise one or more end users (para.[0033]).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5, 7, 10, 14, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang (US 2008/0279273) in view of Schaepe et al. (US 2004/0148296).

**Claim 5** is rejected for the reasons set forth hereinabove for claim 1 and furthermore Liang teaches both descriptors or objects described by a particular

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descriptor using proper links and the descriptors describing the object or descriptor using proper links (fig. 6, para.[0066]).

However, Liang does not explicitly disclose a graphical user interface (GUI) to navigate the enmeshed directory in both direction.

Schaepe teaches method and system for extracting information from input data comprises disclose a graphical user interface (GUI) to navigate the enmeshed directory in both direction (fig. 5, para.[0036]).

It would have been obvious to one having ordinary skill in the art at the time the invention was made having the teachings of Schaepe and Liang before him/her to incorporate the method and system for extracting information from input data into the method for generating a multi-level hierarchical directory structure in order to advantageously navigating through the semantic network according to linking object (para.[0009]). One of ordinary skill in the art would be motivated to make the aforementioned combination with reasonable expectation of success.

**Claims 7, 10, 14 and 18** are rejected for the same reasons discussed related to claim 5. Since claims 7, 10, 14 and 18 are substantially equivalent to claim 5.

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***Response to Argument***

8. With respect to applicant's argument regarding to the drawing objection, the drawing objection has been removed.

The claims have been amended to overcome the claim objection.  
Therefore, the claim objection has been removed.

Claims 9-20 have been amended. However, the claims are still directed to non-statutory subject matter. The U.S.C. § 101 rejections of claims 9-20 are maintained.

Claim 9 is amended to include "a device" to link each of a plurality mesh clients in the method. The mesh network system still does not have the hardware device. The examiner suggests adding a processor or a memory into the mesh network system. For example: A mesh network system comprising a processor, a network manager adapted to manage the mesh network and perform... Also, the examiner suggests deleting "by a device". The linking task is actually controlled by software instruction.

Claim 13 is amended to include "a device" to link an object to multiple descriptors. However, the computer readable medium still includes a radio or infra-red transmission channel, and is communication medium. The examiner suggests amending "a computer readable medium" of claim 13 to become "a computer readable storage medium".

Claim 17 is amended to include "the content server". However, the server is a software component (IEEE - The Authoritative Dictionary of IEEE Standards

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Terms). Thus, the claim still needs a hardware component. The examiner suggests adding a processor or a memory into the mesh network system. For example: A content server comprising a processor, and multicasting ....

Applicant argues that Liang does not teach “identifying a single initial descriptor that links a plurality of descriptors and two or more predecessor descriptors linking another single descriptor to thereby establish relationships between different descriptors relative to themselves and to the single initial descriptor”. The examiner respectfully disagrees and refers applicant to para.[0032], [0050], [0058], [0062] lines 1-5, [0066] and fig. 6. In the applicant's description, the descriptors describe the object. The Service Gateway is the single initial descriptor because it describes type of object, which is on the top level of hierarchy and Service Gateway object is the only one object in the TSFS. The Service Gateway links to other descriptors such as file <http://a.b/c>, directory <http://g.h>, and directory <http://x.y/t>. Thus, Liang teaches “identifying a single initial descriptor that links a plurality of descriptors”. The directories and files are descriptors because it describes the object types. Fig. 6 depicts the descriptors [g.h](http://g.h) and [x.y/t](http://x.y/t) which are predecessor descriptors and link to another descriptor w. Thus, Liang teaches “two or more predecessor descriptors linking another single descriptor”. Figure 6 depicts relationships of different directories, files (descriptors) to themselves and to the Service Gateway (single initial descriptor). Thus, Liang discloses “establish the relationships between different descriptors relative to themselves and to the single initial descriptor”.

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Accordingly, examiner strongly believes that a prima facie case has been clearly establish with respect to the prior art rejection of the instant claims, given their broadest reasonable interpretation.

### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THU-NGUYET LE whose telephone number is (571)270-1093. The examiner can normally be reached on M-F 9:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Thu-Nguyet Le/  
Primary Examiner, Art Unit 2162